

AMENDMENT TO THE CLAIMS

The following claim listing replaces all prior listings and versions of the claims:

LISTING OF CLAIMS

1. (Currently Amended) A power supply system for supplying portable equipment with electric power, comprising:

a notification portion;

a power supply for ~~feeding~~ supplying electric power to at least the notification portion, the power supply including a lithium-ion secondary battery;

a temperature detection portion for detecting a temperature of the power supply;

a voltage detection portion for detecting a voltage of the power supply;

a memory portion for storing a first temperature, a first voltage and a second voltage that is smaller than the first voltage; and

a forced discharge portion for recognizing an abnormality of the power supply when the temperature of the power supply detected by the temperature detection portion is not lower than the first temperature and the voltage of the power supply detected by the voltage detection portion is not lower than the first voltage ~~in a state in which~~ when a power feed from the power supply to the portable equipment for operation of the portable equipment is off, for forcedly discharging the power supply until the voltage of the power supply detected by the voltage detection portion reaches the second voltage, and for electrifying the notification portion by the power supply, thereby making the notification portion continuously notify a message indicating that the abnormality is being avoided while the power supply is forcedly being discharged,

wherein the forced discharge portion includes a control portion configured to make the memory portion store data indicating that forced discharge ~~[[is]]~~ has completed when the forced discharge ~~[[is]]~~ completed, and

the control portion is further configured to make the notification portion notify a message indicating that the abnormality ~~[[is]]~~ has been avoided, responsive to turning on of the power feed from the power supply to the portable equipment, based on the data indicating that the forced discharge is completed, when the power feed from the power supply to the portable equipment for operation of the portable equipment becomes turned on.

2. (Currently Amended) The power supply system according to claim 1, wherein the forced discharge portion further includes:

a switch coupled in series ~~with the notification portion and coupled~~ to the power supply together with the notification portion, and

the control portion is configured to turn on the switch when the abnormality of the power supply is recognized, and to turn off the switch when the voltage of the power supply detected by the voltage detection portion reaches the second voltage.

3. (Cancelled)

4. (Currently Amended) The power supply system according to claim 1, wherein the forced discharge portion further includes a switch ~~involved~~ disposed in the power feed line from the power supply to the portable equipment; and

the control portion is further configured to turn on the switch for forcedly discharging the power supply when the abnormality of the power supply is recognized.

5. (Original) The power supply system according to claim 4, wherein the control portion turns off the switch when the voltage of the power supply detected by the voltage detection portion reaches the second voltage.

6. (Cancelled)

7. (Original) The power supply system according to claim 1, wherein an active material of a positive electrode of the lithium-ion secondary battery comprises nickel complex oxide.

8. (Original) The power supply system according to claim 7, wherein the first temperature is not lower than 55°C and not higher than 65°C, the first voltage is not lower than 4.05V and not higher than 4.15V for each lithium-ion secondary battery, and the second voltage is not lower than 3.85V and not higher than 3.95V for each lithium-ion secondary battery.

9. (Currently Amended) A power supply system for supplying portable equipment having a notification portion with electric power, comprising:

a power supply for ~~feeding~~ supplying electric power to at least the notification portion, the power supply including a lithium-ion secondary battery;

a temperature detection portion for detecting a temperature of the power supply;

a voltage detection portion for detecting a voltage of the power supply;

a memory portion for storing a first temperature, a first voltage and a second voltage that is smaller than the first voltage; and

a forced discharge portion for recognizing an abnormality of the power supply when the temperature of the power supply detected by the temperature detection portion is not lower than the first temperature and the voltage of the power supply detected by the voltage detection portion is not lower than the first voltage ~~in a state in which~~ when the electric power ~~[[feed]]~~ from the power supply to the portable equipment for operation of the portable equipment is off, for forcibly discharging the power supply until the voltage of the power supply detected by the voltage detection portion reaches the second voltage, and for electrifying the notification portion by the power supply, thereby making the notification portion continuously notify a message indicating that the abnormality is being avoided while the power supply is forcibly being discharged,

wherein the forced discharge portion includes a control portion configured to make the memory portion store data indicating that forced discharge ~~[[is]]~~ has completed when the forced discharge ~~[[is]]~~ completed, and

the control portion is further configured to make the notification portion notify a message indicating that the abnormality ~~[[is]]~~ has been avoided, ~~responsive to turning on of the power feed from the power supply to the portable equipment,~~ based on the data indicating that the forced discharge is completed, responsive to turning on the electric power from the power supply to the portable equipment for operation of the portable equipment.

10. (Currently Amended) Portable equipment comprising:
- a notification portion;
 - a power supply for ~~feeding~~ supplying electric power to at least the notification portion, the power supply including a lithium-ion secondary battery;
 - a temperature detection portion for detecting a temperature of the power supply;
 - a voltage detection portion for detecting a voltage of the power supply;
 - a memory portion for storing a first temperature, a first voltage and a second voltage;
 - a forced discharge portion for recognizing an abnormality of the power supply when the temperature of the power supply detected by the temperature detection portion is not lower than the first temperature and the voltage of the power supply detected by the voltage detection portion is not lower than the first voltage ~~in a state in which a~~ when an electric power ~~[[feed]]~~ from the power supply to the portable equipment for operation of the portable equipment is off, for forcibly discharging the power supply until the voltage of the power supply detected by the voltage detection portion reaches the second voltage, and for electrifying the notification portion by the power supply, thereby making the notification portion continuously notify a message indicating that the abnormality is being avoided while the power supply is forcibly being discharged; and
 - an equipment circuit for operating the portable equipment, the equipment circuit being supplied ~~[[fed]]~~ by the power supply,
- wherein the forced discharge portion includes a control portion configured to make the memory portion store data indicating that forced discharge ~~[[is]]~~ has completed when the forced discharge ~~[[is]]~~ completed, and

the control portion is further configured to make the notification portion notify a message indicating that the abnormality ~~[[is]]~~ has been avoided ~~, responsive to turning on of the power feed from the power supply to the portable equipment,~~ based on the data indicating that the forced discharge is completed, when the electric power from the power supply to the portable equipment for operation of the portable equipment is turned on.

11. (Original) The portable equipment according to claim 10, wherein at least one of the voltage detection portion, the memory portion, and the forced discharge portion is integrated with the equipment circuit.